

Amendments to the Claims:

Please cancel claims 1-23 in their entirety without prejudice or disclaimer and add the following new claims:

Listing of Claims:

1. (canceled) Use of a therapeutically active and physiologically acceptable derivative of prostaglandin PGA, PGB, PGD, PGE or PGF, in which the omega chain has the formula:



Wherein

C is a carbon atom (the number is indicated within parenthesis)

B is a single bond, a double bond or a triple bond

D is a chain with 1-10 carbon atoms, optionally interrupted by hetero atoms O, S, or N, the substituents on each carbon atom being H, alkyl groups, preferably lower alkyl groups with 1-5 carbon atoms, a carbonyl group, or a hydroxyl group

R₂ is a ring structure such as a phenyl group which is unsubstituted or has at least one substituent selected from C₁-C₅ alkyl groups, C₁-C₄ alkoxy groups, trifluoro-methyl groups, C₁-C₃ aliphatic acylamino groups, nitro groups, halogen atoms, and phenyl group; or an aromatic heterocyclic group having 5-6 ring atoms, like thiazol, imidazole, pyrrolidine, thiopene and oxazole; or a cycloalkane or a cycloalkene with 3-7 carbon atoms in the ring, optionally substituted with lower alkyl groups with 1-5 carbon atoms,

for the preparation for an ophtalmological composition for the treatment of glaucoma or ocular hypertension.

2. (canceled) Use according to claim 1 wherein D is a chain with 2-8 carbon atoms.

3. (canceled) Use according to claim 1 wherein D is a chain with 2-5 carbon atoms.

4. (canceled) Use according to claim 1 wherein D is a chain with 3 carbon atoms.

5. (canceled) Use according to any of claims 1-4 wherein B is a single bond or a double bond and the substituent on C₁₅ being carbonyl group or (R)-OH or (S)-OH.

6. (canceled) Use according to any of claims 1-5 wherein R₂ is a phenyl group which is unsubstituted or has at least one substituent selected from C₁-C₅ alkyl group, C₁-C₄ alkoxy groups, trifluoromethyl groups, C₁-C₃ aliphatic acylamino groups, nitro groups, halogen atoms or a phenyl group.

7. (canceled) Use according to claim 6 wherein the prostaglandin derivative is a 17-phenyl-18,19,20-trinor analogue.

8. (canceled) Use according to claim 7 wherein the prostaglandin derivative is a 15-dehydro-17-phenyl-18,19,20-trinor analogue or a 13,14-dihydro-17-phenyl-18,19,20-trinor analogue.

9. (canceled) Use according to claim 8 wherein the prostaglandin derivative is a 13,14-dihydro-17-phenyl-18,19,20-trinor derivative of PGA, PGE or PGF.

10. (canceled) Use according to claim 8 wherein the prostaglandin is a 15-dehydro-17-phenyl-18,19,20-trinor derivative of PGA, PGE or PGF.

11. (canceled) Use according to any claims 1-10 wherein the prostaglandin derivative is an alkyl ester.

12. (canceled) A method for treating glaucoma or ocular hypertension in a subject's eye which comprises contacting the surface of the eye with an effective intraocular pressure reducing amount of a therapeutically active and physiologically acceptable derivative of prostaglandin PGA, PGB, PGD, PGE or PGF in which the omega chain has the formula:



wherein

C is a carbon atom (the number is indicated within parenthesis)

B is a single bond, a double bond or a triple bond

D is a chain with 1-10 carbon atoms, optionally interrupted by hetero atoms O, S, or N, the substituents on each carbon atom being H, alkyl groups, preferably lower alkyl groups with 1-5 carbon atoms, a carbonyl group, or a hydroxyl group

R₂ is a ring structure such as a phenyl group which is unsubstituted or has at least one substituent selected from C₁-C₅ alkyl groups, C₁-C₄ alkoxy groups, trifluoro-methyl groups, halogen atoms, and phenyl group; or an aromatic Heterocyclic group having 5-6 ring atoms, like thiazol, imidazole, pyrrolidine, thiopene and oxazole; or a cycloalkane or a cycloalkene with 3-7 carbon atoms in the ring, optionally substituted with lower alkyl groups with 1-5 carbon atoms.

13. (canceled) The method of claim 12 wherein D is chain with 2-8 carbon atoms.

14. (canceled) The method of claim 12 wherein D is a chain with 2-5 carbon atoms.

15. (canceled) The method of claim 12 wherein D is a chain with 3 carbon atoms.

16. (canceled) The method of any of claims 12-15 wherein B is a single bond or a double bond and the substituent on C₁₅ being a carbonyl group or (R)-OH or (S)-OH.

17. (canceled) The method of any of claims 12-16 wherein R₂ is a phenyl group which is unsubstituted or has at least one substituent selected from C₁-C₅ alkyl group, C₁-C₄ alkoxy groups, trifluoromethyl groups, C₁-C₃ aliphatic acylamino groups, nitro groups, halogen atoms or a phenyl group.

18. (canceled) The method of claim 17 wherein the prostaglandin derivative is a 17-phenyl-18,19,20-trinor analogue.

19. (canceled) The method of claim 18 wherein the prostaglandin derivative is a 15-dehydro-17-phenyl-18,19,20-trinor analogue or a 13,14-dihydro-17-phenyl-18,19,20-trinor analogue.

20. (canceled) The method of claim 19 wherein the prostaglandin derivative is a 15-dehydro-17-phenyl-18,19,20-trinor derivative of PGA, PGE or PGF.

21. (canceled) The method of claim 20 wherein the prostaglandin derivative is a 13,14-dihydro-17-phenyl-18,19,20-trinor derivative of PGA, PGE or PGF.

22. (canceled) The method of any of claims 12-21 wherein the prostaglandin derivative is an alkyl ester.

23. (canceled) An ophthalmological composition for topical treatment of glaucoma or ocular hypertension which comprises an effective intraocular pressure reducing amount of a therapeutically active and physiologically acceptable prostaglandin derivative of PGA, PBG, PGD, PGE or PGF in which the omega chain has the formula:



wherein

C is a carbon atom (the number is indicated within parenthesis)

B is a single bond, a double bond or a triple bond

D is a chain with 1-10 carbon atoms, optionally interrupted by hetero atoms O, S, or N, the substituents on each carbon atom being H, alkyl groups, preferably lower alkyl groups with 1-5 carbon atoms, a carbonyl group, or a hydroxyl group

R₂ is a ring structure such as a phenyl group which is unsubstituted or has at least one substituent selected from C₁-C₅ alkyl groups, C₁-C₄ alkoxy groups, trifluoro-methyl groups, C₁-C₃ aliphatic acylamino groups, nitro groups, halogen atoms, and phenyl group; or an aromatic Heterocyclic group having 5-6 ring atoms, like thiazol, imidazole, pyrrolidine, thiopene and oxazole; or a cycloalkane or a cycloalkene with 3-7 carbon atoms in the ring, optionally substituted with lower alkyl groups with 1-5 carbon atoms, in an ophthalmologically compatible carrier.

24. (New) 13, 14-dihydro-17-phenyl-18,19,20-trinor-PGF_{2a}-isopropylester.

25. (New) 15-dehydro-17-phenyl-18,19,20-trinor-PGF_{2a} -isopropylester.

26. (New) 13, 14-dihydro-17-phenyl-18,19,20-trinor-PGA₂-isopropylester.

27. (New) 15-(R)-17-phenyl-18,19,20-trinor-PGF_{2a} -isopropylester.

28. (New) A compound selected from: 16-phenyl-17,18,19,20-tetranor-PGF_{2a} – isopropylester, 17-phenyl-18,19,20-trinor-PGF_{2a} –isopropylester, 16-phenoxy-17,18,19,20-tetranor-PGF_{2a} –isopropylester, 17-phenyl-18,19,20-trinor-PGE₂-isopropylester, 16-[4-(methoxy)-phenyl]-17,18,19,20-tetranor-PGF_{2a} –isopropylester, 18-phenyl-19,20-dinor-PGF_{2a} –isopropylester, and 19-phenyl-20-nor-PGF_{2a} -isopropylester.

29. (New) A therapeutic composition for the treatment of ocular hypertension or glaucoma in humans containing 13, 14-dihydro-17-phenyl-18,19,20-trinor-PGF_{2a}-isopropylester in an amount sufficient to reduce intraocular pressure and an ophthalmologic compatible vehicle.

30. (New) A method of treating ocular hypertension or glaucoma in humans comprising topical administration of a therapeutically effective dose of the therapeutic composition of claim 29.

31. (New) A therapeutic composition for the treatment of ocular hypertension or glaucoma in humans containing 15-dehydro-17-phenyl-18,19,20-trinor-PGF_{2a} -isopropylester in an amount sufficient to reduce intraocular pressure and an ophthalmologic compatible vehicle.

32. (New) A method of treating ocular hypertension or glaucoma in humans comprising topical administration of a therapeutically effective dose of the therapeutic composition of claim 31.
33. (New) A therapeutic composition for the treatment of ocular hypertension or glaucoma in humans containing 13, 14-dihydro-17-phenyl-18,19,20-trinor-PGA₂-isopropylester in an amount sufficient to reduce intraocular pressure and an ophthalmologic compatible vehicle.
34. (New) A method of treating ocular hypertension or glaucoma in humans comprising topical administration of a therapeutically effective dose of the therapeutic composition of claim 33.
35. (New) A therapeutic composition for the treatment of ocular hypertension or glaucoma in humans containing 15-(R)-17-phenyl-18,19,20-trinor-PGF_{2α} - isopropylester in an amount sufficient to reduce intraocular pressure and an ophthalmologic compatible vehicle.
36. (New) A method of treating ocular hypertension or glaucoma in humans comprising topical administration of a therapeutically effective dose of the therapeutic composition of claim 35.
37. (New) A therapeutic composition for the treatment of ocular hypertension or glaucoma in humans containing a compound of claim 28 in an amount sufficient to reduce intraocular pressure and an ophthalmologic compatible vehicle.
38. (New) A method of treating ocular hypertension or glaucoma in humans comprising topical administration of a therapeutically effective dose of the therapeutic composition of claim 37.